

**AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A method for modulating an information signal in a telecommunication system, in which spreading codes are used for discriminating between user signals, said codes being allocated for incoming call requests by selecting them from one or more code structures having codes of different bit rates, ~~characterized by the steps of comprising:~~

- B
- a) noting ~~(2)~~ the a desired bit rate of a code to be allocated for an incoming call request,
  - b) determining ~~(8)~~ the availability of codes having the desired bit rate;
  - c) ~~allocating (9,10) a code in accordance with pre-selected rules by considering the availability of the different codes in a way leading to an optimal use of the code structure(s).~~
  - c) if there is one available code of the desired bit rate, allocating the one available code of the desired bit rate; and
  - d) if there is more than one code of the desired bit rate available, allocating a code in accordance with pre-selected rules so as to prioritize codes preserving a highest possible number of available higher bit rate codes and to maximize the probability of future release of a higher bit rate code.

2. (Currently Amended) The method of claim 1, ~~characterized by~~ further comprising:

assigning (4) the incoming request to another code structure if ~~it is considered in step a)~~ that the a transfer capacity would be exceeded.

3. (Currently Amended) The method of claim 1, ~~characterized by~~ further comprising:

blocking (4) an incoming call request if ~~it is considered in step a)~~ that the a transfer capacity would be exceeded by said incoming call request.

4. (Canceled).

5. (Canceled).

6. (Canceled).

7. (Currently Amended) The method of claim ~~5~~ 1, ~~characterized by~~ prioritizing codes by wherein codes are prioritized by:

a) determining an unavailability ~~degree~~ of shorter length codes relating to available free codes of ~~requested~~ the desired bit rate,

b) choosing the set of codes among the free codes having related shorter length codes with the highest ~~unavailability degrees~~ unavailabilities, and *what does that mean*

c) repeating the foregoing step for related shorter length codes until the root code, *incomplete*  
and finally choosing a code from the resulting ~~subset~~ sets of codes.

8. (Canceled).

9. (Currently Amended) ~~The method of claim 8, characterized by A~~  
method for modulating an information signal in a telecommunication system, in which  
spreading codes are used for discriminating between user signals, said codes being  
allocated for incoming call requests by selecting them from one or more code structures  
having codes of different bit rates, comprising:

- B1 Cont*
- a) noting a rate of a code to be allocated for an incoming call request,
  - b) determining an availability of one or more codes having the desired bit rate, and
  - c) performing a code reallocation ~~reallocating~~ if no code of the desired bit rate is  
available by assigning (6) <sup>*used*</sup> the incoming request to an unavailable code and reallocating  
(7) ~~used~~ <sup>*using*</sup> related lower bit rate codes to release the assigned unavailable code.

10. (Currently Amended) The method of claim 9, ~~characterized by further~~  
comprising:

choosing as a preferred unavailable code one minimizing the total number of  
changes of already allocated codes. *what does that mean*

11. (Currently Amended) The method of claim 9, ~~characterized by further~~  
comprising:

choosing as a preferred unavailable code one having the lowest number of  
assigned lower bit rate codes.

12. (Currently Amended) The method of claim 9, ~~characterized by further~~  
comprising:

performing reallocation of used codes either by allocating or reallocating in accordance with the same rules as used for allocating codes to an incoming request.

13. (Currently Amended) The method of claim 9, ~~characterized by~~ further comprising:

choosing as a preferred unavailable code one having lowest unavailability. *What does this mean*

14. (Currently Amended) The method of claim 9, ~~characterized by~~ further comprising:

*But* choosing as a preferred unavailable code for reallocation one having the lowest number of assigned lower bit rate codes in its subtree, and, in case there ~~are~~ is more than one such unavailable code, choosing one having ~~the~~ lowest unavailability level.

15. (Currently Amended) A system for modulating an information signal in a telecommunication system, in which spreading codes are used for discriminating between user signals, said codes being allocated for incoming call requests by selecting them from one or more code structures having codes of different bit rates, comprising:

~~characterized by means (13, 19-21) for~~

a) means for noting a desired bit rate of a code to be allocated for an incoming call request,

b) means for ~~determinating~~ determining the availability of codes having the desired bit rate,

c) ~~allocating a code in accordance with pre-selected rules by considering the availability of the different codes in a way leading to an optimal use of the code structure(s).~~

c) means for allocating the one available code of the desired bit rate if there is one available code of the desired bit rate,

d) means for allocating a code in accordance with pre-selected rules if there is more than one code of the desired bit rate available so as to prioritize codes preserving the highest possible number of available higher bit rate codes and to maximize a probability of future release of a higher bit rate code.

16. (Currently Amended) The system of claim 15<sup>15</sup>~~16~~, ~~characterized by~~  
further comprising:

means (15) for assigning the incoming request to another code structure if it is considered that the a transfer capacity would be exceeded.

17. (Currently Amended) The system of claim 15, ~~characterized by~~ further comprising:

means (15) for blocking an incoming call request if it is considered that the a transfer capacity would be exceeded by said incoming call request.

18. (Canceled)

19. (Canceled).

20. Canceled).

21. (Currently Amended) The system of claim ~~19~~15, ~~characterized by~~  
further comprising means (19-22) for prioritizing codes by:

- a) determining an unavailability degree of shorter length codes relating to  
available free codes of desired ~~requested~~ bit rate,
- b) choosing the set of codes among the free codes having related shorter length  
codes with the highest unavailability degrees, and
- c) repeating the foregoing step for related shorter length codes until the root code,  
and finally choosing a code from the resulting ~~subset~~ sets of code.

22. (Canceled).

23. (Currently Amended) A system for modulating an information signal in a  
telecommunication system, in which spreading codes are used for discriminating between  
user signals, said codes being allocated for incoming call requests by selecting them from  
one or more code structures having codes of different bit rates, The system of claim 22,  
~~characterized by~~ comprising:

- a) means for noting a desired bit rate of a code to be allocated for an incoming call  
request,
- b) means for determining the availability of codes having the desired bit rate; and
- c) means (17,18) for performing reallocating if no code of the desired bit rate is  
available by assigning the incoming request to an unavailable code, and reallocating used  
related lower bit rate codes to release the assigned unavailable code.

24. (Currently Amended) The system of claim 23, ~~characterized by~~ further comprising:

means for choosing as a preferred unavailable code one minimizing the total  
number of changes of already allocated codes.

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What it means

25. (Currently Amended) The system of claim 23, ~~characterized by~~ further comprising:

means for choosing as a preferred unavailable code one having the lowest number of assigned lower bit rate codes.

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cont.

26. (Currently Amended) The system of claim 23, ~~characterized by~~ further comprising:

means for performing reallocation of used codes either by allocating or reallocating in accordance with the same rules as used for allocating codes to an incoming request.

27. (Currently Amended) The system of claim 23, ~~characterized by~~ further comprising:

means for choosing as a preferred unavailable code one having lowest  
unavailability.

What does it mean

28. (Currently Amended) The system of claim 23, ~~characterized by~~ further comprising:

means for choosing as a preferred unavailable code for reallocation one having the lowest number of assigned lower bit rate codes in its subtree, and, in case there are is

more than one such unavailable code, ~~for~~ choosing one having a lowest unavailability level.

29. (Canceled).

30. (Currently Amended) ~~Computer~~ A computer program to be used in a telecommunication system, in which communication system a spreading code is used in the modulation to discriminate between user signals, the code being allocated from a set of codes of different levels in such a way that the highest possible number of higher bit rate codes are preserved, comprising a computer usable medium having computable readable code embodied therein to carry out the following:

~~characterized in that the following steps are carried out:~~

- a) noting the a desired bit rate of a code to be allocated to an incoming call request;
- b) ~~determination of the~~ determining an availability degree of the different codes having the desired bit rate;
- c) ~~allocating a code according to the availability degree in accordance with an algorithm or a reallocation algorithm performing pre-selected rules~~ if there is one available code of the desired bit rate, allocating the one available code of the desired bit rate; and
- d) if there is more than one code of the desired bit rate available, allocating a code in accordance with pre-selected rules in such a way that the selection of a code to be allocated is performed so as to prioritize codes preserving a highest possible number



available higher bit rates codes and to maximize the probability of future release of a higher bit rate code.

31. (Currently Amended) ~~Computer program of claim 30, further characterized by means for performing~~ A computer program to be used in a telecommunication system, in which communication system a spreading code is used in the modulation to discriminate between user signals, the code being allocated from a set of codes of different levels in such a way that the highest possible number of higher bit rate codes are preserved, comprising a computer usable medium having computable readable code embodied therein to carry out the following:

- a) noting a desired bit rate of a code to be allocated to an incoming call request;
- b) determining an availability of the different codes having the desired bit rate;
- c) if there is one available code of the desired bit rate, allocating the one available code of the desired bit rate; and
- d) if there is more than one code of the desired bit rate available, allocating a code in accordance with pre-selected rules in such a way that the selection of a code to be allocated is performed so as to prioritize codes preserving a highest possible number available higher bit rates codes and to maximize the probability of future release of a higher bit rate code,

wherein the code is further embodied to carry out the steps of any of claims claim

2—14 2.

Redundant (Claim 31)

32. (New) A computer program to be used in a telecommunication system, in which communication system a spreading code is used in the modulation to discriminate between user signals, the code being allocated from a set of codes of different levels in such a way that the highest possible number of higher bit rate codes are preserved, comprising a computer usable medium having computable readable code embodied therein to carry out the following:

- Bl Cont.*
- a) noting a desired bit rate of a code to be allocated to an incoming call request;
  - b) determining an availability of the different codes having the desired bit rate;
  - c) if there is one available code of the desired bit rate, allocating the one available code of the desired bit rate; and
  - d) if there is more than one code of the desired bit rate available, allocating a code in accordance with pre-selected rules in such a way that the selection of a code to be allocated is performed so as to prioritize codes preserving a highest possible number available higher bit rates codes and to maximize the probability of future release of a higher bit rate code,

wherein the code is further embodied to carry out the steps of claim 3.

33. (New) A computer program to be used in a telecommunication system, in which communication system a spreading code is used in the modulation to discriminate between user signals, the code being allocated from a set of codes of different levels in such a way that the highest possible number of higher bit rate codes are preserved,

*redundant  
rules in 1*

comprising a computer usable medium having computable readable code embodied therein to carry out the following:

- a) noting a desired bit rate of a code to be allocated to an incoming call request;
- b) determining an availability of the different codes having the desired bit rate;
- c) if there is one available code of the desired bit rate, allocating the one available

code of the desired bit rate; and

d) if there is more than one code of the desired bit rate available, allocating a code in accordance with pre-selected rules in such a way that the selection of a code to be allocated is performed so as to prioritize codes preserving a highest possible number available higher bit rates codes and to maximize the probability of future release of a higher bit rate code,

wherein the code is further embodied to carry out the steps of claim 7.

34. (New) Apparatus for modulating an information signal in a telecommunication system, in which spreading codes are used for discriminating between user signals, said codes being allocated for incoming call requests by selecting them from one or more code structures having codes of different bit rates, comprising electronic circuitry configured to:

note a rate of a code to be allocated for an incoming call request,  
determine the availability of codes having the desired bit rate, and

Admittedly, it is in 7

not related in combination with other circuitry

perform reallocating if no code of the desired bit rate is available by assigning the incoming request to an unavailable code and reallocating <sup>used</sup> ~~used~~ related lower bit rate codes to release the assigned unavailable code.

35. (New) The apparatus of claim 34, the electronic circuitry further configured to:  
choose as a preferred unavailable code one minimizing the total number of changes of already allocated codes. *What does it mean?*

*Bl Cont.*  
36. (New) The apparatus of claim 34, the electronic circuitry further configured to:  
choose as a preferred unavailable code one having the lowest number of assigned lower bit rate codes.

37. (New) The apparatus of claim 34, the electronic circuitry further configured to:  
choosing as a preferred unavailable code one having a lowest unavailability.

38. (New) The apparatus of claim 34, the electronic circuitry further configured to:  
choose as a preferred unavailable code for reallocation one having the lowest number of assigned lower bit rate codes in a code subtree, and in case there are more than one such unavailable code, choosing one having a lowest unavailability level.

39. (New) A system for modulating an information signal in a telecommunication system, in which spreading codes are used for discriminating between user signals, said codes being allocated for incoming call requests by selecting them from one or more code structures having codes of different bit rates, comprising electronic circuitry configured to:  
*same as claim 34*

note a desired bit rate of a code to be allocated for an incoming call request,

determine an availability of codes having the desired bit rate,

if there is one available code of the desired bit rate, allocate the one available code

*B1 cont.*  
of the desired bit rate, and

if there is more than one code of the desired bit rate available, allocate a code in accordance with pre-selected rules so as to prioritize codes preserving ~~a~~<sup>the</sup> highest possible number of available higher bit rate codes and to maximize the probability of future release of a higher bit rate code.

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